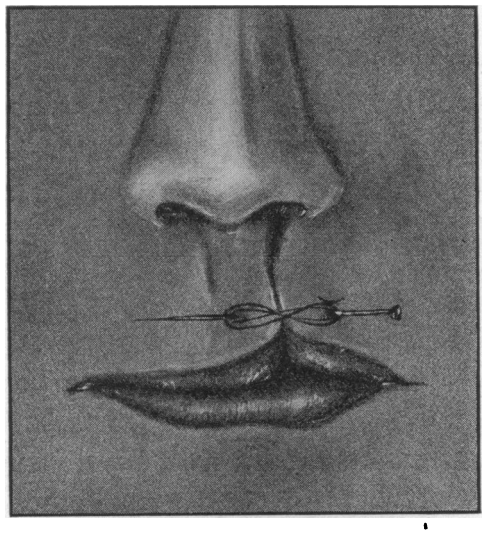

Fig. 2.—Method of suture of harelip referred to by Lambert. The edges were freshened, a long pin passed through both, and a ligature wound about the exposed ends of the pin in "figure-of-eight" fashion.

upon which the arm was bound up, the patient put to bed, and ordered to be kept quiet, &c. as usual in such cases. The wound was first dressed on the fourth day, viz. June 18. It looked well for the time, and continued to heal, without interruption, in a kindly manner. The pin came away with the dressings June 29, that is, on the fourteenth day; and on the 7th of July every part was healed, except what was kept open by the two ligatures, which remained loose in the flesh like two setons. These were therefore removed. In a few days after this, the wound was completely cicatrized: and July 19, the patient was discharged from the hospital perfectly well, and with a pulse in that arm nearly as strong as in the other. Indeed, the pulse was very little altered immediately after the operation; it was weakened in a small degree, as might be expected from the diameter of the vessel being straightened; but it was so strong and equal, that we had not the least doubt of the blood's continuing to circulate freely through it.

"If it should be found by experience, that a large artery, when wounded, may be healed up by this kind of suture, without becoming impervious, it would be an important discovery in surgery. It would make the operation for the Aneurysm still more successful in the arm, when the main trunk is wounded; and by this method, perhaps, we might be able to cure the wounds of some arteries that would otherwise require amputation, or be altogether incurable."

Lambert's hopes were not to receive early fulfillment. About ten years later, after extensive and painstaking animal experimentation, Assmann of Gronigen decided that the suture of arteries was not feasible. The project lay almost untouched for a hundred years, the importance of infection, the greatest obstacle to success, not being appreciated during the interval. Interest was reawakened by the experiments of Gluck in 1883. A few years later, with the advent of more radical surgery in Germany came, inevitably, accidents to large vessels and a new impetus to vascular surgery in man. The trail leads from this point, by way of significant American contributions, to Dörfler, Carrel and Guthrie, who may be said to be responsible for the accepted techniques of today.

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THE HEALTH FOUNDATION FOR RECOVERY†

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II*

INFLUENCE OF RECENT MEDICAL DISCOVERIES ON PRESENT-DAY LIVING

AND what is a reasonable and probable explanation for the continuous and uniform improvement in life-saving in the United States, while by other criteria of social status we would seem to be retrogressing or at least barely holding our own? The answer seems to me to rest in two major characteristics of the public health movement. No other department of local government is so exclusively concerned with the application of biology to social ends. Education has gradually replaced legislation, information based on experimental evidence has replaced traditional authority, the influence of intelligent self-interest has replaced the coercive power of the law. It is the introduction of the medical sciences into civil organization, and the use of learning instead of laws, which have distinguished the health department of today from all other functions of local government, except perhaps that of the public schools. In a notable address last February in Philadelphia before the American Academy of Political and Social Sciences, Dr. Thomas Parran, Jr., the health officer of the state of New York, expressed the gist of the matter as follows:

"Public health is founded upon scientific discoveries which are comparatively recent. There is an inevitable cultural lag between the acquisition of knowledge and its application to the community; and, although the desire for life and health is a basic human emotion, the absence of disease, the prevention of an epidemic, the saving of a life, are rated as negative accomplishments. They are not dramatized in the public consciousness. For a long time statesmen have expressed the thought that the care of the public health is a primary responsibility of government. Blackstone interpreted the legalistic aspect when he said, 'The right to the enjoyment of health is a subdivision of the right of personal liberty, one of the absolute rights of persons.'"

These concepts mean that the community collectively should perform for its citizens (1) those services which are so important to the social organism that they cannot safely be left to the initiative of the individual, uneducated or indifferent to their importance, and (2) those services which, because of their nature, the individual cannot provide for himself.

It is as characteristic of young functions of government as it is of youth itself that rapid growth of knowledge should reveal its vitality. Public confidence and support have followed closely upon satisfaction in the results already achieved. As soon as automatic or traditional belief has given way to a rational conviction in the new truths experimentally proved and practically demonstrated in village, city, and state, preventive

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medicine becomes the topic of the market place and the health officer becomes a prophet in his own country, rather than a sanitary policeman concerned chiefly with his legal rights and powers.

PRESENT-DAY CONCEPTIONS OF THE HEALTH FUNCTION OF A GOVERNMENT

The health function of government as at present conceived is to translate into action the discoveries of the laboratory and the clinic, to test and prove the innumerable factors which handicap life at any age, and put to work the resources of prevention. Among the guarantees of social stability, of permanence in the success of a representative form of government, responsive to the needs of the individual as well as to the will of the majority, is the fact that much ignorance of disease has been conquered, and that knowledge of the laws of health has been put into everyday use in the homes of most of our people.

CALIFORNIA'S PUBLIC HEALTH NEEDS AND RESPONSIBILITIES

What then are the characteristics of your own State in the community of commonwealths? What are California's peculiar needs and responsibilities, and how secure is your share of the west coast of the continent against invasion of bacteria and parasite, deterioration of stock, and the hazards of commerce and travel? What are the probabilities of population change, and a shift of balance of growth across the great valley and the mountains from the Atlantic to the Pacific basin?

In spite of the chronological youth of its organized government, California belongs among the more aged of the states having a higher proportion of its population in the decades beyond forty-five years of age than any but the New England states. While but 23 per cent of the people of the nation are forty-five years of age or over, in California almost 28 per cent are in this age group with Vermont, showing 29 per cent and the New Hampshire 30 per cent. This distinction of maturity is a dominant factor in creating the leading problems in preventive medicine for your physicians and health officers.

CALIFORNIA'S BIRTH AND MORTALITY RATES

Your very low birth rate is the natural accompaniment of your high death rate from heart disease and cancer. With a national heart disease death rate of 224, California's is 252, New Hampshire's and Vermont's just over 300. And similarly with cancer, the national death rate from which is 102, that of New Hampshire 135, and California 124.

And let me repeat that high death rates from heart disease and cancer in a population like yours is to be expected, is not at all discreditable, but in fact represents truthfully the degree of your success in saving infant and child life. We may learn to prevent and cure more cases of cancer, but to anticipate a reduction of deaths from heart disease occurring after the age of sixty would call for a bolder optimism than our present knowledge warrants.

Your birth rate will continue to fall, your general death rate will presently start to rise, and in the not distant future you will achieve a stable population probably before the nation as a whole ceases to grow.

There is now only one state, Oregon, with a birth rate lower than that of California. The birth rate of the nation in 1933 was 16.4, that of Oregon was 12.2, and that of California 12.4; with Washington (13.0), New Jersey (13.4), Connecticut (13.6) next in order. The four states with high birth rates are New Mexico with a rate of twenty-seven, and North and South Carolina and Utah with rates of twenty-three.

Even as early as 1950 you may expect a stationary population; after which there may be a decline such as we have reason to expect in New York State about the same time, even though the population of the nation may increase until about 1970.

It is estimated that England will be showing a falling population before 1945. It has been historical experience that when a people does not fully utilize its available natural resources it is presently displaced by some more vigorous or ambitious race.

There is, then, in the not too distant offing a challenge to keep our death rate still a little below our birth rate, and to see to it that the knowledge of contraceptive measures is spread among those races which now, from force of surplus populations and restricted area, look covetously upon our continental wealth and spaciousness.

It is true that today, as for many decades past, my own city and state of New York have grown at a relatively greater rate than have the United States as a whole. New York City is, in fact, the metropolitan center of this continent; and if national population becomes stationary the state of New York will draw many people from other parts of the country because of its superior advantages.

INFLUENCE OF THE GREAT WATER BASINS ON CIVILIZATION

It has been the teaching of history, however, that the great water basins have determined the growth and movement of populations. The Mediterranean and the Atlantic have had their turn, and it is to be expected that with the obvious awakening and restlessness of the peri-Pacific peoples your State may be called upon to adjust itself to a flow of strangers from overseas similar to that which has for a century and a half inundated, fertilized and made wealthy the ports of our eastern seaboard.

You and the nation behind you have suffered once and again from disease introduced from abroad, and you have carried the burden of tuberculosis brought in from other states. The tuberculosis death rate of California is eighty-one, while that of the United States as a whole is sixty-three, and that of New York City and State is sixty-one.

There is probably no greater sanitary contrast anywhere in the world than between the health conditions of this great San Francisco Bay area

and that of the unsewered hordes of your opposite neighbors across the Pacific.

Sanitary civilization such as England initiated, and we have achieved for but a bare majority of our people, begins with the lifting of man and his home out of the elemental slime of his own body excreta.

A vast and ancient people, learned, wise, cultured, deeply religious in their own way, as are the Chinese, have not been able to reconcile their urgent daily need of food with that cleanliness which seems to us a *sine qua non* of housekeeping and personal hygiene. There is a conflict of deeper concern than any between ambitious, proud, or jealous governments, but one which will surely and at no distant date succumb to the pacific penetration of the ideas of public health. When the Orientals have learned the lessons of sanitation and have availed themselves of the techniques and materials upon which population control depends, two great hindrances will have been removed which now justify our declining to welcome these people freely to share our social order and our government.

IN CONCLUSION

If the thought has not yet been expressed, and taken action through your State government, or by voluntary initiative, let me suggest to you that you follow the example of the Governor of New York State and create a planning board to consider social trends, as these are likely to affect your immediate and more remote future health.

Biology in government, which is public health, requires the vision of the seer, the calculations of the statistician, the practical wisdom of the trained executive.

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CLINICAL NOTES AND CASE REPORTS

FURUNCULOSIS OF EXTERNAL AUDITORY CANAL*

By SIDNEY H. GIDOLL, M. D.
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AT casual glance it may appear quite superfluous to discuss such a trite subject as furunculosis of the external auditory canal; but careful consideration will indicate that some crystallization of thought is necessary anent the multiple therapeutic agents at hand for this common condition. The mere fact that so many different drugs are mentioned in the literature is in itself a confession of inadequacy.

SYMPTOMS AND SIGNS

When the patient presents himself, he complains of symptoms entirely out of proportion to the pathology found; the cardinal symptom being intense earache, often becoming so severe as to be unendurable. This pain is aggravated by any manipulation of the auricle, pressure over the tragus, or any movement of the mandible, such as mastication or yawning, which necessarily increases the pressure against the external fibrocartilaginous canal.

Inspection of the canal during the early stages may fail to disclose any objective finding whatsoever; or, at best, a small reddened elevation may be discerned at times. As the pathology is essentially an inflammation of a hair follicle or sebaceous gland, within the cartilaginous canal, careful exploration with a fine probe will disclose a point of exquisite tenderness. At this stage there has been as yet no liquefaction of pus, and abortion of the condition, without the necessity of incision, is often successfully accomplished by appropriate therapy.

MULTITUDINOUS THERAPEUTIC PROCEDURES

And it is concerning this phase of therapy that authorities differ; each one, apparently, advocating his own favorite procedure, which probably works well enough in his own hands. To give a slight idea of the variety of agents recommended, I will quote but from a few of the standard authorities and texts:

Politzer

Thirty years ago Politzer [1] suggested choice of the following:

(*a*) Aq. opii 4.0, aq. dest. 12.0.

(*b*) Five per cent cocain solution.

(*c*) Burow's solution (argill. acet. solut. Burowii, aq. dest., aa 15.0, cocain muriat. 1.0).

(*d*) The insertion of a long piece of solid fat (pig's), covered with a morphin-boracic acid salve (acid. boric. 1.0, vaselin 20.0, acet. morph. 0.2).

(*e*) Carbolic acid 0.5, glycerin 15.0.

(*f*) Boric acid 1.0, alcohol 20.0.

(*g*) Argill. acet. Burowii and aluminum aceticotartaricum.

(*h*) Sublimate alcohol (hydr. muriat. corros. 0.05-0.1, spirit. vini rectif. 50.0).

Beck

Twenty years later, Beck [2] offered as his favorite procedure:

(*a*) A cotton tampon, dipped in pure alcohol, or

(*b*) Hot Billroth solution (lead acetate 1.0, alum 10.0, water 100.0), as gauze packing within the canal.

Kerrison

Kerrison [3] goes to greater trouble in the preparation of the canal prior to instituting his treatment. He cleanses the canal of all extraneous material by warm boric acid irrigations and then scrubs it out with cotton wound applicators dipped in 95 per cent alcohol. He then allows a pledget of cotton, saturated with carbolic acid 1:100, to remain within the canal for a minute or so. Following this, he inserts a wick of gauze which had been dipped in carbolic acid 1:300, and then wrung dry, and allows it to remain twenty-four

*Paper aims to present an evaluation of therapeutic procedures.